

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO. 02AH60		PROJECT NAME Cheshire monitoring study				NO. OF CON- TAINERS	<div style="text-align: right;">Activity Code: 12345 90101A</div> <div style="font-size: 2em; text-align: center;">AIR 0208003</div>										
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike Murphy Mike Murphy</i>																	
STA. NO.	DATE	TIME	COM P	GRA B	STATION LOCATION												
DO1	7/25	00:00	X		GHS	1										5-340266 1 to 1	
SO1	7/25	00:00	X		GHS	1										5-340265 1 to 1	
SO2	7/25	00:00	X		RVHS	1										5-340267 1 to 1	
SO3	7/25	00:00	X		ADDAVILLE	1										5-340268 1 to 1	
																GHS # 3012, Pstg Avg = 21.5	
																GHS # 3013, Pstg Avg = 21.3	
																RVHS, Pstg Avg = 21.8	
																Addaville, Pstg Avg = 21.2	
Relinquished by: (Signature)			Date / Time		Received by: (Signature)				Ship To:								
<i>Mike Murphy</i>			7-25-02 14:15		<i>William August</i>												
Relinquished by: (Signature)			Date / Time		Received by: (Signature)				ATTN:								
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature)				Date / Time		Airbill Number						
					<i>William August</i>				8/7/02 10:01A		UPS # 12 401 199 014038 8807						
														Chain of Custody Seal Numbers			

Project No. 02AH60 Project Name *CHESTER MONITORING STUDY* 90101A
AIR 0208003 ARRIVAL DATE: 7/25/2002 DUE DATE: 8/28/2002

Sampler

Mike Murphy

Cooler ID 02AH601 Page 5-140066

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH60DO1	DO1	25/07/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340266 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH60SO1	SO1	25/07/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340265 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH60SO2	SO2	25/07/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340267 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH60SO3	SO3	25/07/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340268 1 to 1

Bottle No. 1

Parameter

PM10



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: OCT 23 2002

Subject: Review of Region 5 Data for CHESHIRE MONITORING STUDY

From: Francis A. Awanya, Chemist *FAA*
Region 5 Central Regional Laboratory

To:

Attached are the results for: CHESHIRE MONITORING STUDY

CRL data set number: 0208003

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH60D01, 2002AH60S01, 2002AH60S02, and 2002AH60S03.**

OCT 23 2002

Data Management Coordinator and Date Received

Date Transmitted: OCT 23/2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

_____/ /
Received by and Date

Comments:

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated <u>B</u> lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is <u>estimated</u> due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (<u>J</u> is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL <u>M</u> ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is <u>estimated</u> since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS <u>T</u> entatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or <u>Q</u> uantitation problems, but are confirmed to be qualitatively present in the sample. <u>No value is reported with this qualification flag.</u>
R	This flag applies to analyte data that are <u>R</u> ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. <u>No value is reported with this qualification flag.</u>
U	This flag is used when the analyte was analyzed for but <u>U</u> ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.



Environmental Protection Agency Region 5
Central Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

WORK ORDER

Printed: 8/12/02 8:58:52AM

0208003

US EPA Region 5 Central Regional Laboratory

Client: Air Division, US EPA Region 5
Project: Gavin, Cheshire. Ohio

Project Manager: Marilyn Jupp
Project Number: [none]

Report To:

Kathy Triantafillou
Air Division, US EPA Region 5

77 West Jackson Boulevard
Chicago, IL 60605

Phone: (312) 353-4775
Fax: (312) 353-2001

Date Due: Aug-28-02 15:00 (21 day TAT)

Received By: William Sargent

Date Received: Aug-07-02 10:01

Logged In By: William Sargent

Date Logged In: Aug-07-02 10:01

Samples Received at:	°C	Starts 8-3-01
All containers intact:	No	Ends 8-3-02
Sample labels/COC agree:	No	
Samples Preserved Properly:	No	
Custody Seals Present:	No	

Analysis	Due	TAT	Expires	Comments
----------	-----	-----	---------	----------

0208003-01 2002AH60D01-GHS#3012,PSTG AVG=21.5 [Air Filter] Sampled
Jul-25-02 00:00 Central

PM10	Aug-28-02 12:00	21	Jul-25-03 00:00
------	-----------------	----	-----------------

0208003-02 2002AH60S01-GHS#3013, PSTG AVG=21.3 [Air Filter] Sampled
Jul-25-02 00:00 Central

PM10	Aug-28-02 12:00	21	Jul-25-03 00:00
------	-----------------	----	-----------------

0208003-03 2002AH60S02-RVHS, PSTG AVG=21.8 [Air Filter] Sampled
Jul-25-02 00:00 Central

PM10	Aug-28-02 12:00	21	Jul-25-03 00:00
------	-----------------	----	-----------------

0208003-04 2002AH60S02-ADDAVILLE, PSTG AVG=21.2 [Air Filter] Sampled
Jul-25-02 00:00 Central

PM10	Aug-28-02 12:00	21	Jul-25-03 00:00
------	-----------------	----	-----------------

Reviewed By

Date

Data Set Number:	<u>0208003</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>10/17/2002</u>	Analyst:	<u>FAA</u>
Prepared by:	<u>FAA</u>	Signature:	<u>FAA</u>

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on August 07, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6597473	2002AH60D01	5-340266-1
Q6597472	2002AH60S01	5-340265-1
Q6597470	2002AH60S02	5-340267-1
Q6597469	2002AH60S03	5-340268-1

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 08/14/2002 and was completed on 08/16/2002. All exposed filters were in good conditions. No sampler serial numbers were provided by the field for filter G6597470 (CRL Sample I.D 2002AH60S02) and G6597469 (CRL Sample I.D 2002AH60S03).

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 07/25/2002 LAB ARRIVAL DATE: 08/07/2002 DUE DATE: 08/28/2002
DU NUMBER: 90101A WORK ORDER NUMBER: 0208003 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH60D01	GUIDING HANDS SCHOOL	0.0351			
2	2002AH60S01	GUIDING HANDS SCHOOL	0.0524			
3	2002AH60S02	RVHS	0.0521			
4	2002AH60S03	ADDAVILLE	0.0512			
DATE OF ANALYSIS			08/14-16/2002			
ANALYST			FWA			

Reviewed by: AT Date: 10 / 22 / 2002

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page ___ of ___

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 0208003 Facility: GAVIN, CHESHIRE, OHIO
 Parameter: SUSPENDED PARTICLES CRL.SOP: AIG-047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	✓	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: FWA Peer Reviewer: AT
 Date: 10/17/02 Date: 10/21/2002
 Comments Attached? (Y/N) N

Data Set Number:	<u>0208003</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>10/17/2002</u>	Analyst:	<u>FAA</u>
Prepared by:	<u>FAA</u>	Signature:	<u>FAA</u>

ANALYSIS CASE NARRATIVE

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QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

PREPARATION BENCH SHEET

B2J1602

US EPA Region 5 Central Regional Laboratory

Printed: 10/16/02 4:26:04PM

Matrix: Air Filter

Prepared using: A&I - General Preparation

(No Surrogate)

Lab Number	Analysis	Prepared	Initial (g)	Final (g)	Spike ID	Source ID	ul Spike	ul Surrogate	Initials			Extraction Comments
0207011-01	PM10	Aug-14-02 16:11	1	1								
0207011-02	PM10	Aug-14-02 16:11	1	1								
0207011-03	PM10	Aug-14-02 16:11	1	1								
0207011-04	PM10	Aug-14-02 16:11	1	1								
0207012-01	PM10	Aug-14-02 16:11	1	1								
0207012-02	PM10	Aug-14-02 16:11	1	1								
0208003-01	PM10	Aug-14-02 16:11	1	1								
0208003-02	PM10	Aug-14-02 16:11	1	1								
0208003-03	PM10	Aug-14-02 16:11	1	1								
0208003-04	PM10	Aug-14-02 16:11	1	1								
0208004-01	PM10	Aug-14-02 16:11	1	1								
0208004-02	PM10	Aug-14-02 16:11	1	1								
0208004-03	PM10	Aug-14-02 16:11	1	1								
0208004-04	PM10	Aug-14-02 16:11	1	1								
B2J1602-DUP1	QC	Aug-14-02 16:11	1	1		0207012-01						
B2J1602-DUP2	QC	Aug-14-02 16:11	1	1		0208003-03						

Spiking Witnessed By _____ Date _____

Preparation Reviewed By _____ Date _____

Extracts Received By _____ Date _____

CHESHIRE AIR MONITORING PROJECT

PM10

Parameter: Suspended Particles

Work Ordert Numbers: 0207011, 0207012, 0208003, 0208004

Date of Analysis 8/16/2002

Analyst: FAA

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/-0.0005 g		
Work Ordert Numbers: 0207011, 0207012, 0208003, 0208004		
1.0000	0.9998	0.0002
2.0000	2.0001	-0.0001
5.0000	5.0001	-0.0001

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID Number	CRL Sample I.D Number	Sampling Date	ANALYST	Exposed weight (g)
Work Ordert Numbers: 0207011, 0207012, 0208003, 0208004				
Q8609546	2002AH59D01	07/19/02	Analyst 1	4.4171
Q8609546	2002AH59D01	07/19/02	Analyst 2	4.4169
Differences (Limit +/- 5 mg).....				0.0002
Q6597470	2002AH60S02	07/25/02	Analyst 1	4.4664
Q6597470	2002AH60S02	07/25/02	Analyst 2	4.4664
Differences (Limit +/- 5 mg).....				0.0000

Sampling
Date

**CHESHIRE AIR MONITORING PROJECT
PM10**

Filter ID Number	CRL Sample I.D Number	Sampling Date	Station Location	Sampler SN	Pstg Avg	P1/Pa	Total Volume (M^3)	Pre Weight of filters (g)	Exposed weight (g)	Weight Gain	PM10 (UG/M^3)
Work Order Number 0207011											
Q8609542	2002AH58D01	07/13/02	Guiding Hands School	3013	16.00		0.00	4.3772	4.4053	0.0281	ERR
Q8609550	2002AH58S01	07/13/02	Guiding Hands School	3012	16.05		0.00	4.3860	4.4149	0.0289	ERR
G8609543	2002AH58S02	07/13/02	RVHS	-	16.40		0.00	4.3893	4.4172	0.0279	ERR
Q8609544	2002AH58S03	07/13/02	Addaville	-	15.85		0.00	4.3942	4.4215	0.0273	ERR
Work Order Number 0207012											
Q8609546	2002AH59D01	07/19/02	Guiding Hands School	3013	16.50		0.00	4.3690	4.4171	0.0481	ERR
Q8609545	2002AH59S01	07/19/02	Guiding Hands School	3012	16.40		0.00	4.3801	4.4302	0.0501	ERR
Work Order Number 0208003											
Q6597473	2002AH60D01	07/25/02	Guiding Hands School	3012	21.50		0.00	4.4380	4.4731	0.0351	ERR
Q6597472	2002AH60S01	07/25/02	Guiding Hands School	3013	21.30		0.00	4.4558	4.5082	0.0524	ERR
Q6597470	2002AH60S02	07/25/02	RVHS	-	21.80		0.00	4.4143	4.4664	0.0521	ERR
Q6597469	2002AH60S03	07/25/02	Addaville	-	21.20		0.00	4.4357	4.4869	0.0512	ERR
Work Order Number 0208004											
Q6597474	2002AH61D01	07/31/02	Guiding Hands School	3012	21.00		0.00	4.4511	4.4803	0.0292	ERR
Q6597477	2002AH61S01	07/31/02	Guiding Hands School	3013	21.20		0.00	4.4380	4.4822	0.0442	ERR
Q6597476	2002AH61S02	07/31/02	RVHS	-	21.75		0.00	4.4355	4.4760	0.0405	ERR
Q6597478	2002AH61S03	07/31/02	Addaville	-	20.95		0.00	4.4059	4.4435	0.0376	ERR

File ID.	TARE wt (g)	DUP wt (g)	Exposed wt (g)	Exposed wt Dup (g)	Comments
06597495	4.4440				
06597468	4.4357				
06597469	4.4357		4.4869		
06597470	4.4143		4.4664	4.4664 ^{no}	
06597471	4.4502	4.4506			
06597472	4.4558		4.5082		
06597473	4.4380		4.4731		
06597474	4.4511		4.4803		
06597479	4.4035	4.4040			
06597476	4.4355		4.4760		
06597477	4.4380		4.4822		
06597478	4.4059		4.4435		
06597479	4.4190				
06597480	4.4166				
06597481	4.4009				
06597482	4.4009				
06597483	4.4152				
06597484	4.4140				
06597485	4.4080				
06597486	4.3839				
06597487	4.4050				
06597488	4.4444				
06597489	4.4134	4.4133			
06597490	4.3813				
06597491	4.4264				
06597492	4.4290				
0659496	4.4216				

OLD

ACTUAL

PM-10

64/60

MOT-

UPLW/ALL

TOTAL FLOW

3.11

SAMPLE WT

ELAPSED TIME

07/17

MINUTES

PRESS

641111

INITIAL WT

5

AVG. RECORDER RESP.

9812

4131

FINAL



DSL

SITE

6H5#30182

06597473

PM-10

AIRS

0/7/22 at 11

OPERATOR

DATE _____

20-8-74

[REDACTED]

5-340266-1

Parameters PM10

A1R 0208003

Preservative None

S M MD B D

Sample ID 02AH60DO1

x

Sampler

Mike Murph

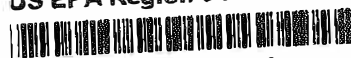
Date _____

7-2.5-02

COMMENTS:

STD _____ ACTUAL _____
 FLOW _____ m^3/min _____
 ELAPSED TIME _____ MINUTES _____
 AVG. RECORDER RESP. _____ 21.43 _____
 TSP _____ SITE _____
 PM-10 _____ AIRS _____
 OPERATOR _____ DATE _____
 INITIAL WT _____ mmHg _____
 FINAL WT _____ K _____
 TOTAL FLOW _____ m^3 _____
 SAMPLE WT _____ ug/m^3 _____

US EPA Region 5 Field Sample



5-340265-1

Parameters PM10

AIR 0208003

Preservative None

S M M D B D

Sample ID 02AH60501

X

Sampler Mike Murphy

Date 7-25-02

COMMENTS:

STD _____ ACTUAL _____
 FLOW m^3/min _____
 ELAPSED TIME min _____
 MINUTES _____
 PRESS mmHg _____
 TOTAL FLOW m^3 _____
 SAMPLE WT ug/m^3 _____
 AVG. RECORDER RESP. 21.8 _____
 TEMP $^{\circ}\text{C}$ _____
 K _____
 FINAL WT _____
 INITIAL WT _____
 TSP _____
 SITE RHS Q 6537470 _____
 AIRS _____
 OPERATOR CEPA _____
 DATE $7-25-02$ _____

US EPA Region 5 Field Sample



5-340267-1

Parameters PM10

AIR 0208003

Preservative None S M M D B D

Sample ID 02AH60S02 X

Sampler Mike MurphyDate 7-25-02

COMMENTS:

STD _____ ACTUAL _____ PM-10 _____
 FLOW _____ m^3/min _____ TOTAL FLOW _____ m^3 _____
 ELAPSED TIME _____ MINUTES _____ PRESS _____ mmHg _____
 AVG. RECORDER RESP. _____ 212 _____ TEMP _____ $^{\circ}C$ _____
 TSP _____ SITE _____ ADDRESS _____
 PM-10 _____ AIRS _____ OPERATOR _____ DATE _____

US EPA Region 5 Field Sample



5-340268-1

Parameters PM10

AIR 0208003

Preservative None

S M MD B D

Sample ID 02AH60S03

X

Sampler Mike Murphy

Date 7-25-02

GENERAL INFORMATION

STANDARD WEIGHTS ACTUAL(g)

BALANCED WEIGHTS BALANCED(g)

METTLER AG 285

0.1000

0.10000

S/N 1120181838

0.2000

0.20000

8/16/2002 FAA

0.5000

0.50000

10.0000

10.0001

20.0000

20.0005 ^{FAA 8/16/02}

50.0000

50.0003

100.0000

100.0006

SARTORIUS

1.0000

0.9998

S/N 37010119

2.0000

2.0001

8/16/02 FAA

5.0000

5.0001

